a system for controlling said at least one characteristic optical parameter of said incoherent light source, said at least one characteristic optical parameter selected from the group consisting of light wavelength distribution, pulse width of the light wavelength distribution, energy density and combinations thereof, thereby allowing achievement of a desired optical condition for applying a thermal heating protocol to a particular portion of at least one of the epidermis and the dermis of the patient; and

a light source housing containing said incoherent light source and having an opening of large size such that said incoherent light beam is output for performing the thermal therapy over a large exposure area of the patient's skin.

46. The device as defined in Claim 45 wherein the device does not include an optical fiber for defining a path of travel of the incoherent light beam.

47. The device as defined in Claim 45 wherein the opening of the housing defines a shape of the incoherent light beam output to the patient's skin.

48. A device for performing thermal therapy of at least one of the epidermis and dermis of a patient's skin, comprising:

a source of incoherent light for generating an incoherent light beam characterized by a combination of balanced optical parameters with the combination adjusted for a particular thermal therapy application;

a system for controlling said combination of balanced optical parameters of said incoherent light beam, said combination of balanced optical parameters selected from the group consisting of (a) light wavelength distribution and pulse width, (b) light wavelength distribution and energy density and (c) a combination of (a) and (b), said combination thereby

enabling achievement of a desired optical condition for applying a thermal heating protocol necessary to carry out therapeutic treatment of at least one of the epidermis and the dermis of the patient's skin; and

a light source housing containing said incoherent light source and having an opening of large size such that said incoherent light beam is output for performing the thermal therapy over a large exposure area of the patient's skin.

49. The device as defined in Claim 48 wherein the opening of the housing is disposed proximal to the patient's skin.

50. The device as defined in Claim 48 wherein the light beam is output from the housing without use of an optical fiber protruding from the housing.

51. A device for performing thermal therapy of at least one of the epidermis and dermis of a patient's skin, comprising:

a source of light characterized by a combination of balanced optical parameters for a light output beam with the combination adjusted for a particular thermal therapy application;

a housing for said source of light and having a mirror disposed for collecting the light from said light source and said housing providing said output light beam without use of an optical fiber, said housing further including a collimator defining a large output area for said output light beam for applying thermal therapy to a large area of the patient's skin relative to that of an optical fiber; and

a system for controlling said combination of balanced optical parameters with said combination selected from the group consisting of (a) light wavelength and pulse width of said output light beam (b) energy density and light wavelength, (c) pulse width and energy

density and (d) combinations of (a) and (b), and said combination of balanced optical parameters enabling achievement of a desired thermal heating protocol necessary to carry out thermal therapy treatment of at least one of the epidermis and the dermis of the patient's skin.

52. The device as defined in Claim 51 wherein the large output area has a maximum length dimension of about 5cm.

53. The device as defined in Claim 51 wherein said housing is disposed proximal to the patient's skin.

54. The device as defined in Claim 51 wherein said light wavelength comprises a range of light wavelengths within a band region of about 300 nm to 1000 nm.

55. The device as defined in Claim 51 wherein said pulse width is in the range of about 10^{-5} sec to 10^{-1} sec.

56. The device as defined in Claim 51 wherein said energy density is in the range of about 0.5J/cm^2 to 300 J/cm^2.

57. The device as defined in Claim 51 wherein said housing further includes a variable size opening for said collimator.

58. The device as defined in Claim 51 further including a light wavelength filter disposed along an optical path of said light output beam for controlling the light wavelength of said light output beam.

59. The device as defined in Claim 51 wherein said light source comprises a broad wavelength flash lamp.

60. A device for performing thermal therapy on at least one of the epidermis and dermis of a patient's skin, comprising:

a source of incoherent light characterized by a combination of balanced optical parameters for a light output beam with the combination adjusted for a particular thermal therapy application;

a housing for controlling path of travel of said light output beam generated by said source of incoherent light, said housing including a collimator defining a opening in said housing through which said output beam passes and said housing being disposed adjacent the patient's skin for applying thermal therapy to a large area of the patient's skin; and

a system for controlling said combination of balanced optical parameters with said combination selected from the group consisting of (a) light wavelength and pulse width of said output light beam (b) energy density and light wavelength, (c) pulse width and energy density and (d) combinations of (a) and (b), and said combination of balanced optical parameters enabling achievement of a desired thermal heating protocol necessary to carry out thermal therapy treatment of at least one of the epidermis and the dermis of the patient's skin.

61. The device as defined in Claim 60 wherein said light output beam includes a light wavelength within a band of about 300 nm to 1000 nm.

62. The device as defined in Claim 60 further including a mirror which in combination with the collimator defines intensity and shape of the light output beam.

63. A device for performing thermal therapy of at least one of the epidermis and dermis of a patient's skin, comprising:

a source of light for generating a light beam characterized by at least one optical parameter for a particular thermal therapy application;

a system for controlling said at least one characteristic optical parameter of said light source, said at least one characteristic optical parameter selected from the group consisting of light wavelength distribution, pulse width of the light wavelength distribution, energy density and combinations thereof, thereby allowing achievement of a desired optical condition for applying a thermal heating protocol to a particular portion of at least one of the epidermis and the dermis of the patient; and

a light source housing for receiving said light beam output from said light source and having an opening of large size such that said incoherent light beam is output for performing the thermal therapy over a large exposure area of the patient's skin.

64. A device for performing thermal therapy of at least one of the epidermis and dermis of a patient's skin, comprising:

a source of light for generating a light beam characterized by a plurality of balanced optical parameters with the parameters adjusted for a particular thermal therapy application;

a system for controlling said plurality of balanced optical parameters of said light beam, said plurality of balanced optical parameters selected from the group consisting of (a) light wavelength distribution and pulse width, (b) light wavelength distribution and energy density and (c) a combination of (a) and (b), said plurality of optical parameters thereby enabling achievement of a desired optical condition for applying a thermal heating protocol necessary to carry out thermal therapy treatment of at least one of the epidermis and the dermis of the patient's skin; and

a light source housing for containment of said light beam and having an opening of large size such that said light beam is output through the opening for performing the thermal therapy over a large exposure area of the patient's skin.

65. The device as defined in Claim 64 wherein the device does not include an optical fiber for outputting the light beam to the patient's skin through the opening of the light source housing.

66. The device as defined in Claim 64 wherein the opening in the housing comprises a collimater element of adjustable dimensions.

67. The device as defined in Claim 64 further including a filter disposed along a path travelled by the light beam.

68. The device as defined in Claim 64 further including a detector disposed outside the housing for sampling a portion of the output light beam.

69. The device as defined in Claim 64 wherein a collimator element defines shape of the output light beam and is disposed proximal to the patient's skin.

70. A device for performing thermal therapy of at least one of the epidermis and dermis of a patient's skin, comprising:

a source of light characterized by a combination of balanced optical parameters for a light output beam with the combination adjusted for a particular thermal therapy application;

a housing for containment of said source of light, said housing having a mirror disposed for collecting the light from said light source, and providing said output light beam without use of an optical fiber and said housing further including a collimator opening

disposed in close proximity to the patient's skin and defining a large area for said output light beam for applying thermal therapy to a large area of the patient's skin; and

a system for controlling said combination of balanced optical parameters with said combination selected from the group consisting of (a) light wavelength and pulse width of said output light beam (b) energy density and light wavelength, (c) pulse width and energy density and (d) combinations of (a) and (b), and said combination of balanced optical parameters enabling achievement of a desired thermal heating protocol necessary to carry out therapeutic treatment of at least one of the epidermis and the dermis of the patient's skin.

17. A device for performing thermal therapy on at least one of the epidermis and dermis of a patient's skin, comprising:

a source of light characterized by a combination of balanced optical parameters for a light output beam with the combination adjusted for a particular thermal therapy treatment;

a housing for enclosing at least a portion of a path of travel of said light output beam generated by said source of light without use of an optical fiber, said housing including a collimator defining a opening in said housing through which said output beam passes and said housing being disposed proximate the patient's skin for applying thermal therapy to a large area of the patient's skin; and

a system for controlling said combination of balanced optical parameters with said combination selected from the group consisting of (a) light wavelength and pulse width of said output light beam (b) energy density and light wavelength, (c) pulse width and energy density and (d) combinations of (a) and (b), and said combination of balanced optical

parameters enabling achievement of a desired thermal heating protocol necessary to carry out the therapeutic treatment of at least one of the epidermis and the dermis of the patient's skin.

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17 16
72. The device as defined in Claim 71 wherein said collimator defines extreme light rays of said light output beam.

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73. The device as defined in Claim 71 wherein the large area of the a patient's skin is defined by the collimator opening of maximum size 5cm length by 5mm width.

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74. The device as defined in Claim 71 wherein the source of light comprises an incoherent light source.

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75. The device as defined in Claim 71 further including a mirror disposed within the housing for coupling the light to the patient's skin.

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76. The device as defined in Claim 75 wherein the collimator and the mirror cooperate to define intensity distribution incident on the patient's skin.

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77. The device as defined in Claim 71 further including an optical filter which selectively removes light wavelengths from the output beam to control energy density incident on the patient's skin.

23 19
78. The device as defined in Claim 71 further including a detector disposed outside the housing for sampling a portion of the output beam.

24 14
79. The device as defined in Claim 71 wherein the collimator is disposed proximal to and facing the patient's skin to undergo the thermal therapy.

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80. A device for treating vascular lesions in a patient's skin, comprising:

a housing containing an incoherent light source for generating an incoherent light beam characterized by at least one optical parameter for treating vascular lesions;

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a system for controlling said at least one characteristic optical parameter of said incoherent light source, said at least one characteristic optical parameter selected from the group consisting of a light wavelength distribution between about 500 nm to 1000 nm, a pulse width of the light wavelength distribution of about 1 to 100 msec and an energy density, thereby allowing achievement of an optical condition for treating vascular lesions in the patient's skin without burning of the skin.

81. The device as defined in Claim 80 wherein the device does not include an optical fiber for defining at least part of a path of travel of the incoherent light beam.

82. The device as defined in Claim 80 wherein the energy density is in a range of about 0.5 to 100 J/cm^2.

83. The device as defined in Claim 80 wherein said housing has an opening defining a beam of small width relative to length.

84. The device as defined in Claim 80 further including a mirror disposed to collect light from the light source and outputting the light through a collimator in said housing.

REMARKS

Claims 2-44 originally filed have been canceled and new Claims 45-84 have been added. Please enter these new claims and proceed with examination of Claims 1 and 45-84

Respectfully submitted,

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